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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/780,216	02/17/2004	Yasushige Tomiyoshi	82478-5100	9461

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SNELL & WILMER LLP
600 ANTON BOULEVARD
SUITE 1400
COSTA MESA, CA 92626

EXAMINER

KEANEY, ELIZABETH MARIE

ART UNIT	PAPER NUMBER
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2882

DATE MAILED: 12/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/780,216

Applicant(s)

TOMIYOSHI ET AL.

Examiner

Elizabeth Keane

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8-15 is/are allowed.
- 6) ☒ Claim(s) 1 and 3-7 is/are rejected.
- 7) ☒ Claim(s) 2 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>4/9/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 3-7 rejected under 35 U.S.C. 103(a) as being unpatentable over Tokes et al. (US Patent Application Publication 2002/0190625; hereinafter Tokes.

Re claim 1: Tokes discloses, in figure 1 and throughout the disclosure, a compact self-ballasted fluorescent lamp, comprising:

- an arc tube (2) formed by a glass tube double-spirally wound from a middle to both ends thereof around a predetermined axis; and

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- a cylindrical holding member (4) having an end wall where a pair of insertion openings are formed, and holding the arc tube in a state where both end parts of the glass tube are inserted in the insertion openings,
 - wherein a pitch of (a) each part and (b) an adjacent spiral part in a direction of the axis is larger than a pitch of other adjacent spiral parts, to widen a gap between each end part and the adjacent spiral part.

However, Tokes fails to teach or fairly suggest the length of the last spiral on the lamp.

One of ordinary skill in the art would recognize that a minimum distance between the end portion and any portion on the last spiral would have to be in the range of 1.5 to 4.0mm.

It would have been obvious to one of ordinary skill in the art to choose a minimum distance between then end and any point on an area that is on the outer surface of a spiral part adjacent to one of the ends in the direction of the axis because it prevents overheating the housing and causing the housing to melt, thereby being a safety precaution for the device.

Re claim 3: Tokes teaches all the limitations as shown above.

However, Tokes fails to teach or fairly suggest a gap between the other adjacent spiral parts is in a range of 1-3mm.

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One of ordinary skill would recognize that a gap must be present between adjacent spiral parts.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to choose a gap between 1 and 3 mm because it prevents the spiral parts from touching while having a the light be emitted within a compact area, thereby preventing the emitted light from inadequately dispersing from the lamp.

Re claim 4: Tokes discloses a globe covering the arc tube; and a case that is fit to cover a circumferential wall of the holding member, wherein a gap is formed between the circumferential wall of the holding member and the case, and the globe is fixed in a state where an opening end thereof is fit in the gap (paragraph 45, lines 1-8).

Re claim 5: Tokes discloses the arc tube being thermally connected to the globe via a heat conductive medium, at a coolest position of the arc tube during lighting, or a position in a vicinity of the coolest position (paragraphs 35-36).

Re claim 6: Tokes discloses an inner diameter of the glass tube in the range of 5-9mm (paragraph 47, line 16).

Re claim 7: Tokes discloses an annular outer diameter of the double-spiral arc tube to be in the range of 30-40mm (paragraph 47, lines 17-20).

Allowable Subject Matter

Claim 2 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 8-15 are allowed over the prior art of record.

The following is a statement of reasons for the indication of allowable subject matter:

Re claim 2: The best prior art of record discloses many of the features in claim 2, including a compact self-ballasted fluorescent lamp comprising a double-spirally wound glass tube. However, the prior art fails to teach or fairly suggest a compact self-ballasted fluorescent lamp wherein the winding pitch of the glass tube is changed to enlarge at such a position back from each end by 60-120 degrees with respect to the axis, as viewed in the direction of the axis, as claimed in claim 2.

Re claims 8-15: The best prior art of record discloses many of the features in claim 8, including a compact self-ballasted fluorescent lamp comprising a holding member. However, the prior art fails to teach or fairly suggest a compact self-ballasted fluorescent lamp wherein a distance between a first point that is at a middle of an area sandwiched between the pair of tube-holding structures in a circumferential direction of the end wall as viewed in the direction of the axis and a second point that is on an outer surface of a spiral part positioned outward with respect to the holding member and

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facing the first point being in the range of 1.5-4.0mm, as claimed in claim 8. Claims 9-15 are allowable by virtue of their dependency.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- US Patent 6,633,128 and US Patent Application Publications 2003/0234614 and 2004/0263079 disclose the current state of the art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth Keaney whose telephone number is (571)272-2489. The examiner can normally be reached on Monday, Tuesday, Thursday, Friday 7:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Glick can be reached on (571)272-2490. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Elizabeth Keaney
Examiner
Art Unit 2882



EDWARD J. GLICK
SUPERVISORY PATENT EXAMINER